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The Claims:

1. An electrical connection device for a machine cable,
the device comprising:
 - a first connector having a first contact,
 - 5 a second connector having a second contact, the first
connector and the second connector being moveable between
a disengaged condition in which the first and second
contacts are remote from each other and an engaged
condition in which the first and the second contacts are
10 electrically connected and
 - a drive for imparting a driving force to drive the
first and the second connectors relative to each other
whereby the first connector and the second connector move
between the disengaged and the engaged positions, the
15 drive having an element that distributes the driving
force around at least one of the first and the second
connectors.
2. The electrical connection device as claimed in claim
20 1 wherein each of the first and the second connectors
comprises a housing and wherein the first connector
comprises a first flame path surface and second connector
comprises a second flame path surface, the flame path
surfaces being arranged so that one of the flame path
25 surfaces surrounds the other flame path surface when the
connectors are moved to the engaged position so as to
define a flame path between the flame path surfaces.
3. The electrical connection device as claimed in claim
30 2 wherein the tolerance between the first and the second
flame path surfaces are arranged to mate with a tolerance
of less than 0.4 mm between them.

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4. The electrical connection device as claimed in claim 3 wherein the tolerance is less than 0.2mm.
- 5 5. The electrical connection device as claimed in any one of the preceding claims wherein the drive has a first drive part associated with the first connector and a second drive part associated with the second connector.
- 10 6. The electrical connection device as claimed in claim 5 wherein the first drive part and the second drive part are arranged so that the driving force is distributed substantially equally around at least one of the first and the second connector and wherein the first drive part
15 comprises a ring-like element.
7. The electrical connection device as claimed in claim 6 wherein the second connector comprises an engagement surface which extends at least in part around the second
20 connector.
8. The electrical connection device as claimed in claim 7 wherein the engagement surface surrounds the second connector entirely and the ring-like element of the first
25 connector surrounds the engagement surface entirely.
9. The electrical connection device as claimed in claim 7 or 8 wherein the ring-like element and the engagement surface are arranged to engage with each other and to
30 distribute the driving force substantially equally around at least one of the first and the second connector.
10. The electrical connection device as claimed in any

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one of claims 1 to 5 wherein the drive is arranged to distribute the drive force at discrete positions that at least in part surround at least one of the first and the second connector.

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11. The electrical connection device as claimed in any one of claims 5 to 10 wherein the first drive part and the second drive part are arranged so that the connectors can be driven relative to each other along a substantially
10 linear path.

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12. The electrical connection device as claimed in any one of the preceding claims wherein the drive comprises a geared arrangement.

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13. The electrical connection device as claimed in claim 12 when dependent on claim 5 wherein the geared arrangement comprises a threaded drive and a threaded portion and wherein the first drive part is a threaded
20 drive and the second drive part is a threaded portion.

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14. The electrical connection device as claimed in claim 13 when dependent on claim 7 wherein the threaded portion of the geared arrangement forms the engagement surface.

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15. The electrical connection device as claimed in claim 14 wherein the threaded portion of the geared arrangement forms a part of the exterior surface of the second connector.

16. The electrical connection device as claimed in claim 15 wherein the threaded portion of the geared arrangement comprises a helical groove that surrounds the second

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connector and is positioned so that an imaginary axis about which the helical groove is wound is substantially parallel to the movement of the first contact and the second contact relative to each other.

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17. The electrical connection device as claimed in claim 16 when dependent on claim 6 wherein the ring-like element is a toothed wheel of the threaded drive and the threaded drive comprises and a toothed shaft.

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18. The electrical connection device as claimed in claim 17 wherein the toothed wheel of the geared arrangement has a toothed inner peripheral surface and a toothed outer peripheral surface.

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19. The electrical connection device as claimed in claim 18 wherein the geared arrangement is arranged so that the toothed shaft engages with the outer peripheral toothed surface of the ring-like toothed wheel.

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20. The electrical connection device as claimed in claim 18 or 19 wherein the inner peripheral toothed surface of the ring-like toothed wheel is arranged to engage with the helical groove.

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21. The electrical connection device as claimed in any one of claims 17 to 20 wherein the toothed shaft of the geared arrangement is rotatable but captured in position relative to the first connector.

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22. The electrical connection device as claimed in any one of claims 17 to 21 wherein the geared arrangement is arranged so that a rotational motion of the toothed shaft

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is translated by the toothed wheel into a translational relative movement of the connectors.

23. The electrical connection device as claimed in any
5 one of the preceding claims wherein one of the first and the second connectors has a elongate groove on its outer peripheral surface and oriented along the imaginary axis and the other connector has a projection that is arranged to slide in the elongate groove.

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24. The electrical connection device as claimed in claim 23 wherein the elongate groove and the projection are arranged so that, in use, a rotation of the first connector relative to the second connector is avoided.

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25. The electrical connection device as claimed in claim in any one of the preceding claims wherein the first contact is a pin and the second contact is a socket.

20 26. The electrical connection device as claimed in any one of claims 1 to 24 wherein the first contact is a socket and the second contact is a pin.

27. The electrical connection device as claimed in any
25 one of the preceding claims being suitable for delivery of a power of more than 100kW.

28. The electrical connection device as claimed in any
30 one of claims 1 to 26 being suitable for the delivery of more than 1MW.

29. A method of connecting a first electrical connector with a second electrical connector, the first electrical

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connector having a first contact and the second electrical
connector having a second contact, the first connector and
the second connector being moveable between a disengaged
condition in which the first and second contact are remote
5 from each other and an engaged condition in which the
first and second contacts are in electrical contact, the
method comprising the steps of:

10 distributing a driving force around at least one of
the first and the second connectors and
driving the first and the second connector relative
to each other so that the first connector and the second
connector move between the disengaged and the engaged
position.

15 30. A first electrical connector for a machine cable, the
connector comprising:

a first contact and
a drive part arranged for engagement with another drive
part of another connector that has a second contact in a
20 manner such that the first connector and the second
connector are moveable between a disengaged condition in
which the first and second contacts are remote from each
other and an engaged condition in which the first and
second contacts are in electrical contact

25 wherein in use at least one of the first and the
second drive parts imparts a driving force that is
distributed around at least one of the connectors.